



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

FRANK BACON MACHINERY SALES CO.
21251 Ryan Road
Warren, MI 48091
Katrina Nelson Phone: 586 756 4280

CALIBRATION

Valid To: June 30, 2023

Certificate Number: 6166.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations¹:

I. Dimensional

Parameter/Equipment	Range	CMC ² (±)	Comments
Linear Displacement – Encoder ³	(0.5 to 48) in	0.014 in	ASTM E2309
Linear Displacement – Digital Indicator ³	(0.002 to 2) in (0.01 to 1) in	0.000 24 in 0.000 37 in	ASTM E2309
Extensometer ³	(0.002 to 2) in	0.000 24 in	ASTM E83-with: precision micrometer

II. Mechanical

Parameter/Equipment	Range	CMC ² (±)	Comments
Force – Force Machines ³ Compression & Tension	(1 to 200) lbf (250 to 10 000) lbf (1131 to 60 000) lbf (32 564 to 600 000) lbf	0.05 lbf 2.5 lbf 18 lbf 290 lbf	Class 6 certified weights ASTM E4

III. Time & Frequency

Parameter/Equipment	Range	CMC ² (\pm)	Comments
Speed ³ – Linear Travel	(0.001 to 30) in/min	0.0091 in/min	ASTM E2658

¹ This laboratory offers commercial calibration service.

² Calibration and Measurement Capability Uncertainty (CMC) is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine calibrations of nearly ideal measurement standards or nearly ideal measuring equipment. CMCs represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of $k = 2$. The actual measurement uncertainty of a specific calibration performed by the laboratory may be greater than the CMC due to the behavior of the customer's device and to influences from the circumstances of the specific calibration.

³ Field calibration service is available for this calibration. Please note the actual measurement uncertainties achievable on a customer's site can normally be expected to be larger than the CMC found on the A2LA Scope. Allowance must be made for aspects such as the environment at the place of calibration and for other possible adverse effects such as those caused by transportation of the calibration equipment. The usual allowance for the actual uncertainty introduced by the item being calibrated, (e.g. resolution) must also be considered and this, on its own, could result in the actual measurement uncertainty achievable on a customer's site being larger than the CMC.



Accredited Laboratory

A2LA has accredited

FRANK BACON MACHINERY SALES CO.

Warren, MI

for technical competence in the field of

Calibration

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This laboratory also meets R205 – Specific Requirements: Calibration Laboratory Accreditation Program. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 6th day of May 2021

A blue ink signature of the Vice President of Accreditation Services.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 6166.01
Valid to June 30, 2023

For the calibrations to which this accreditation applies, please refer to the laboratory's Calibration Scope of Accreditation.